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SUPPLEMENTAL EXAMINER'S AMENDMENT

1. A supplemental examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this supplemental examiner's amendment was given in a telephone interview with Ryan O'Donnell on May 13, 2008.

The application has been amended as follows:

IN THE SPECIFICATION:

The following has been added to the specification after the paragraph ending at pg. 8, line 5, and before the paragraph beginning at pg. 8, line 6:

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BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a series of graphs showing HLA-E tetramer binds NK cells and a subset of T cells. Flow cytometry analysis on gated peripheral blood lymphocytes from normal EBV seropositive donor VB using **(FIG. 1A)** HLA-E tetramer refolded around the leader sequence peptide residues 3-11 from HLA-B*0801 or **(FIG. 1C)** HLA-A2 tetramer refolded around the Epstein Barr Virus (EBV) lytic cycle BMLF1 259-267 peptide epitope. The phenotypes of **(FIG. 1B)** HLA-E tetramer or **(FIG. 1D)** HLA-A2 tetramer binding lymphocytes were further investigated in triple color stains as indicated. Percentages in each quadrant are represented by the cross in the upper right.

FIG. 2 illustrates a series of graphs showing HLA-E tetramer staining is inhibited by anti-CD94 antibodies. In **FIG. 2A**, peripheral blood lymphocytes from normal donor SRJ stained with the anti-CD94 antibody HP3D9 (1/50 dilution of ascites) followed by FITC-anti-mouse IgG (Fab')₂ (Sigma); HLA-E tetramer PE alone; or HLA-E tetramer-PE in the presence of HP3D9 (1/50) which inhibited HLA-E tetramer staining. In **FIG 2B**, the NK cell line NKL expressing the NK receptor CD94/NKG2A but none of the KIR molecules stained with the anti-CD94 antibody DX22 (1 mg) followed by PE-anti-mouse IgG; HLA-E tetramer-PE; or HLA-E tetramer-PE in the presence of 1 mg of DX22 antibody which inhibited HLA-E tetramer staining. Percentages in each quadrant are listed in the upper right.

FIG. 3 illustrates a series of graphs showing HLA-E binds to NK cell CD94/NKG2A, CD94/NKG2B and CD94/NKG2C receptors but not to CD94 or NKG2 alone. **FIG. 3A** illustrates P815

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cells stably transfected with pBJ-neo vector containing human CD94 cDNA or NKG2B cDNA. Cells were stained with PE-control mouse IgG1 (cMIgG1) or IgG2b (cMIgG2b), anti-CD94 antibody DX22-PE, anti-NKG2A and B antibody DX20-PE, or HLA-E tetramer-PE. **FIG. 3B** illustrates 293T cells stably transfected with CD94 were transiently transfected with NKG2A, NKG2B, and NKG2C. Flow cytometry staining was performed using rabbit preimmune serum (cRIgG) 1/500 final dilution or rabbit anti-CD94/NKG2 heterodimer serum (anti-CD94/NKG2) 1/500 final dilution, both followed by FITC- anti-rabbit IgG, or with HLA-E tetramer-PE.

FIG. 4 illustrates a series of graphs showing HLA-E mediates inhibition of NK cells through interaction with CD94/N KG2A. In **FIG. 4A**, lysis of 721.221 cells expressing HLA-B*5801, HLA-G or a chimeric molecule (GLS-B*5801) containing the HLA-G leader sequence and the extracellular, transmembrane, and cytoplasmic domains of HLA-B*5801 by a representative NK-cell clone expressing the CD94/NKG2A receptor. Assays were performed at an effector to target ratio of 0.5:1, in the presence of control immunoglobulin (cIg), anti-CD94 (DX22), or anti-HLA class I (DX17) at $5\mu\text{g ml}^{-1}$. In **FIG 4B**, lysis of 721.221 cells expressing mouse CD80 or a chimeric molecule (B7LS-mCD80) containing the HLA-B*0702 leader sequence and the extracellular, transmembrane, and cytoplasmic domains of mouse CD80 by two representative NK-cell clones expressing the CD94/NKG2A receptor. Assays were performed at an effector-to-target ratio of 1:1 in the presence of control immunoglobulin (cIg) or anti-CD94 (DX22) at $10\mu\text{g ml}^{-1}$.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS --

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Pierre VanderVegt whose telephone number is (571)272-0852. The examiner can normally be reached on M-Th 6:30-4:00 and Alternate Fridays 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen O'Hara can be reached on (571) 272-0878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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